Flood stages during April, 1922—Continued.

River and station.	Flood stage.	Above flood stages—dates. From—	To—	Crest. Stage.	Date.
MISSISSIPPI DRAINAGE—continued.					
Arkansas:	*Feet.*			*Feet.*	
Wichita, Kans.	9	9	10	9.9	9
Fort Smith, Ark.	22	10	17	27.8	12
Dardanelle, Ark.	20	11	18	25.2	13
Little Rock, Ark.	23	14	15	23.3	14
Pine Bluff, Ark.	25	14	17	26.0	16
Neosho:					
Neosho Rapids, Kans.	22	10	11	24.4	11
Le Roy, Kans.	24	9	11	27.4	9
Iola, Kans.	15	9	13	19.2	10
Oswego, Kans.	17	5	17	23.8	9
Wyandotte, Okla.	23	10	10	23.5	10
Fort Gibson, Okla.	22	10	17	30.0	11
	22	19	19	22.4	19
Cottonwood:					
Emporia, Kans.	20	10	12	22.9	11
North Canadian:					
Woodward, Okla.	3	5	10	3.4	8
	3	25	(2)	5.0	25
Canton, Okla.	3	26	26	3.7	26
Oklahoma City, Okla.	12	10	10	12.6	10
Petit Jean:					
Danville, Ark.	20	(1)	3	22.7	2
	20	6	9	22.6	7
Little Arkansas:					
Sedgwick, Kans.	18	28	9	23.5	9
White:					
Newport, Ark.	26	13	14	26.2	13–14
Georgetown, Ark.	22	(1)	24	23.9	6-9,11,15
Clarendon, Ark.	30	7	27	30.7	11-21
Black:					
Black Rock, Ark.	14	(1)	(2)	23.4	9
Cache:					
Patterson, Ark.	9	(1)	19	10.3	1
Sulphur:					
Finley, Tex.	22	(1)	16	26.4	2-3
	22	27	(2)	28.2	30
Ringo Crossing, Tex.	20	6	10	23.0	6
	20	26	(2)	23.8	28
Cypress:					
Jefferson, Tex.	18	2	8	21.6	4
	18	27	(2)	20.5	28
WEST GULF DRAINAGE.					
Sabine:					
Logansport, La.	25	(1)	(2)	34.7	2
Orange, Tex.	4	8	24	5.0	17
Neches:					
Rockland, Tex.	20	(1)	17	28.9	2
	20	29	(2)	21.7	30
Beaumont, Tex.	7	4	21	11.2	9-10
Trinity:					
Fort Worth, Tex.	30	25	26	39.1	25
Dallas, Tex.	25	4	9	36.5	5
	25	26	(2)	42.3	27
Trinidad, Tex.	28	6	17	38.3	11
	28	26	(2)	38.8	30
Long Lake, Tex.	40	9	16	41.7	9
	40	30	(2)	42.4	30
Liberty, Tex.	25	(1)	(2)	28.0	7-10
Brazos:					
Waco, Tex.	27	4	5	33.3	4
	27	27	27	30.4	27
Valley Junction, Tex.	44	5	7	49.4	6
	44	29	29	47.3	29
Washington, Tex.	45	6	10	49.9	8
	45	29	30	46.2	30
Hempstead, Tex.	40	8	11	42.7	9
Freeport, Tex.	4	13	14	4.2	13–14
	4	16	17	4.2	[1]6–17
COLORADO DRAINAGE.					
Colorado (Texas):					
Austin, Tex.	18	27	(2)	21.2	28
Smithville, Tex.	24	30	(2)	24.1	30
Columbus, Tex.	28	5	7	31.7	6
	28	29	(2)	33.0	30
Guadalupe:					
Gonzales, Tex.	22	5	6	33.3	5
	22	29	29	25.2	29
Victoria, Tex.	16	1	3	21.0	3
	16	5	10	23.9	9
	16	30	(2)	17.2	30
Colorado/					
Lee's Ferry, Ariz.	12	26	(2)	13.6	30
North Fork of Gunnison:					
Paonia, Colo.	8	26	(2)	8.6	30

[1] Continued from March, 1922. [2] Continued into May, 1922.

MEAN LAKE LEVELS DURING APRIL, 1922.

By UNITED STATES LAKE SURVEY.

[Detroit, Mich., May 3, 1922.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes.[1] Superior.	Michigan and Huron.	Erie.	Ontario.
Mean level during April, 1922:	*Feet.*	*Feet.*	*Feet.*	*Feet.*
Above mean sea level at New York	601.45	579.93	572.35	246.06
Above or below—				
Mean stage of March, 1922	+0.10	+0.53	+0.96	+0.98
Mean stage of April, 1921	−0.24	−0.41	−0.44	−0.32
Average stage for April, last 10 years	−0.37	−0.45	−0.12	−0.35
Highest recorded April stage	−1.24	−3.30	−1.83	−2.37
Lowest recorded April stage	+0.91	+0.71	+1.09	+1.22
Average relation of the April level to:				
March level		+0.30	+0.70	+0.70
May level		−0.30	−0.40	−0.30

[1] Lake St. Clair's level: In April, 575.08 feet.

EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS, APRIL, 1922.

By J. WARREN SMITH, Meteorologist.

The first half of April was warm for the season in the Central and Eastern States, but unseasonably cool weather persisted west of the Rocky Mountains, while the latter half of the month was cool in the east, with freezing temperatures extending southward well into the Appalachian Mountain districts.

The unseasonably cold and stormy weather in the more Western States was decidedly unfavorable for stock in that section, expecially for young lambs, and considerable loss was reported. The warm weather in Eastern States had forced a rapid development of fruit bloom, and early varieties were coming into blossom in districts that were visited by freezing temperatures and killing frosts the latter part of the month. Much damage was done to fruit in the upper Ohio Valley and the central Appalachian districts by the freeze of April 22–24. Additional damage occurred to fruit in these sections during the following week, being rather heavy in central Ohio and West Virginia, and to grapes and early cherries in New York.

The weather continued generally favorable for winter wheat and other fall-sown grains east of the Rocky Mountains. The mild temperatures and abundant moisture caused rapid growth of winter wheat, while the rains early in the month favorably affected this crop in the Southwest. There was too much rain, however, in some central districts; and much wheat land was flooded in many low sections, while plants continued to show lack of vitality and stooled poorly in western Kansas, due to the previous long winter drought.

Seeding of spring wheat and spring oats was further delayed in central and northern districts by frequent rains, but there was a marked improvement in soil condition the latter part of the month, which permitted of much better progress, especially in some large oat-producing sections of the upper Mississippi Valley. Spring-wheat seeding was pushed during the last two weeks of